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Estimates of US Blood Donors Who Traveled/Lived in Countries Exposed to BSE During 1980-1996

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National Heart, Lung, and Blood Institute (REDS)
- in cooperation with the American Association of
Blood Banks and America's Blood Centers

The 1999 Blood Donor Travel Survey

Participating Blood Centers:

- ◆ American Red Cross, Greater Chesapeake and Potomac Region
- ◆ American Red Cross, Southeastern Michigan Region
- ◆ American Red Cross, Southern California Region
- ◆ American Red Cross, New England Region
- ◆ American Red Cross, Connecticut Region
- ◆ American Red Cross, Southern Region
- ◆ Irwin Memorial Blood Centers/UCSF
- ◆ Oklahoma Blood Institute
- ◆ New York Blood Center
- ◆ Blood Bank of San Bernardino
- ◆ Lifeblood (Memphis)
- ◆ Community Blood Center of South Florida

Travel Survey: Objectives

- ◆ Estimate US Donor travel/residence in United Kingdom or Republic of Ireland (UK) for defined time periods relevant to BSE epidemic
- ◆ Correlate travel/residence in UK with other donation variables to estimate impact of deferral on blood safety and availability

Measure of Non-UK BSE Exposure

- ◆ The survey was not designed to collect specific information on countries other than the UK
- ◆ There was disagreement as to whether non-UK BSE exposure should be collected

Travel Survey: Methods

- ◆ Random sample from donations in 12/98 or 1/99
- ◆ 19,067 anonymous OPSCAN surveys mailed
- ◆ Single mailing of survey with cover letter
- ◆ Presented data covers returns through 7/20/99
- ◆ Approximately 50% or 9,541 responded

Travel Survey: Question Categories

- ◆ Demographics
- ◆ Donation History
- ◆ Travel/residence in UK (1980-89; 1990-96)
- ◆ Travel/residence in Non-UK BSE countries
- ◆ Beef ingestion while in UK and past year
- ◆ Deferrable Risk estimates for UK travelers
(DR93, DR98 from 1998 REDS survey)

Determination of Travel or Residence in Non-UK BSE Countries

- ◆ Did you travel to or live elsewhere in Europe? If yes, please indicate if you traveled to or lived in any of the countries listed.
 - France, Switzerland, Netherlands, Portugal, Belgium, Germany and Luxembourg/Liechtenstein
- ◆between 1980 and 1989?
- ◆between 1990 and 1996?

Prevalence of Donor Travel/Residence in UK and Other BSE Countries During 1980-96

	UK	Non-UK BSE	Total
1980-1996	22.8%*	23.7%†	32.1%‡¶
Per Year (unadjusted)	1.3%	1.4%	1.9%

*Range by blood center - 10.2 - 31.7%

†Range by blood center - 10.2 - 40.2%

‡Range by blood center - 14.6 - 47.7%

¶14.4% traveled to both UK and non-UK BSE countries

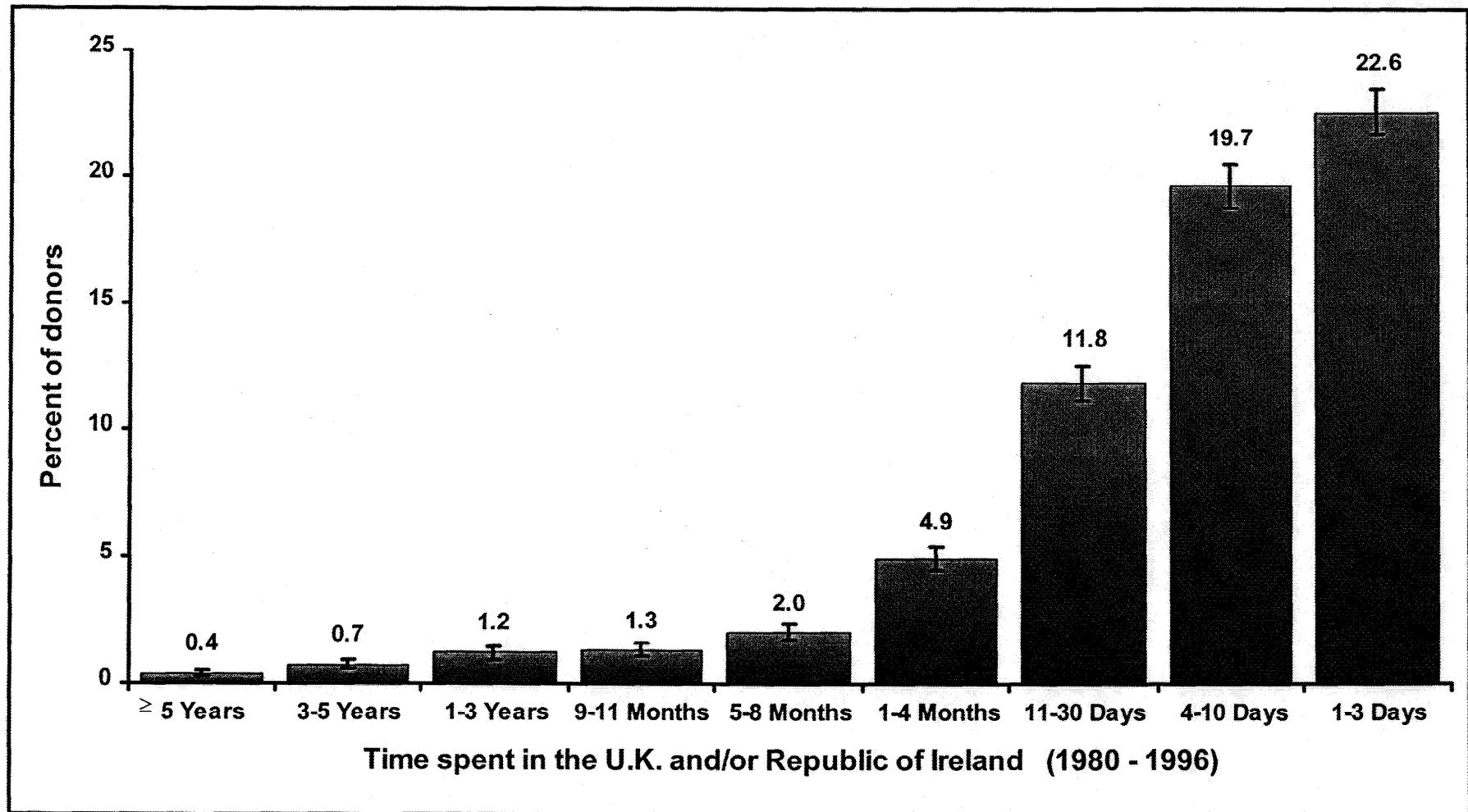
Prevalence of Donor Travel/Residence in France and UK During 1980-96

	France & UK	France without UK
1980-1996	27.5%	4.7%
Per Year (unadjusted)	1.6%	0.3%

Prevalence of Donor Travel/Residence in Non-UK BSE Countries During 1980-1996

Prevalence 1980-1996	
France	15.6%
Germany	14.6%
Switzerland	9.8%
Netherlands	7.1%
Belgium	5.9%
Luxembourg	3.7%
Portugal	2.2%

Reported Cumulative Prevalence of Donor Travel to the U.K. and/or Republic of Ireland for 1980 to 1996



Blood Resources Lost by Deferral of Donors in UK 1984-1990

Deferral Prevalence X 11.9 million = estimated
annual lost units

<u>Deferral</u>	<u>Lost Units</u>	<u>% of US supply</u>
5 year (.003)	35,700	0.3%
1 year (.016)	190,400	1.5%
6 mo. (.024)	285,600	2.2%
3 mo. (.037)	440,300	3.4%
1 mo. (.070)	833,000	6.4%
1 week (.163)	1,939,700	14.9%

Cumulative Prevalence of Donor Travel to Non-UK BSE Countries 1980-1996

<u>Duration</u>	<u>Prevalence</u>	<u>95% CI</u>
1-3 days	29.2	28.3-30.1
4-10 days	28.0	27.1-28.9
11-30 days	21.2	20.4-22.0
1-4 months	10.7	10.1-11.4
5-8 months	4.8	4.4-5.3
9-11 months	3.4	3.0-3.8
1-2 years	2.9	2.6-3.3
3-5 years	1.8	1.5-2.1
5+ years	0.7	0.5-0.8

Cumulative Prevalence of Donor Travel to UK and Non-UK BSE Countries 1980-1996

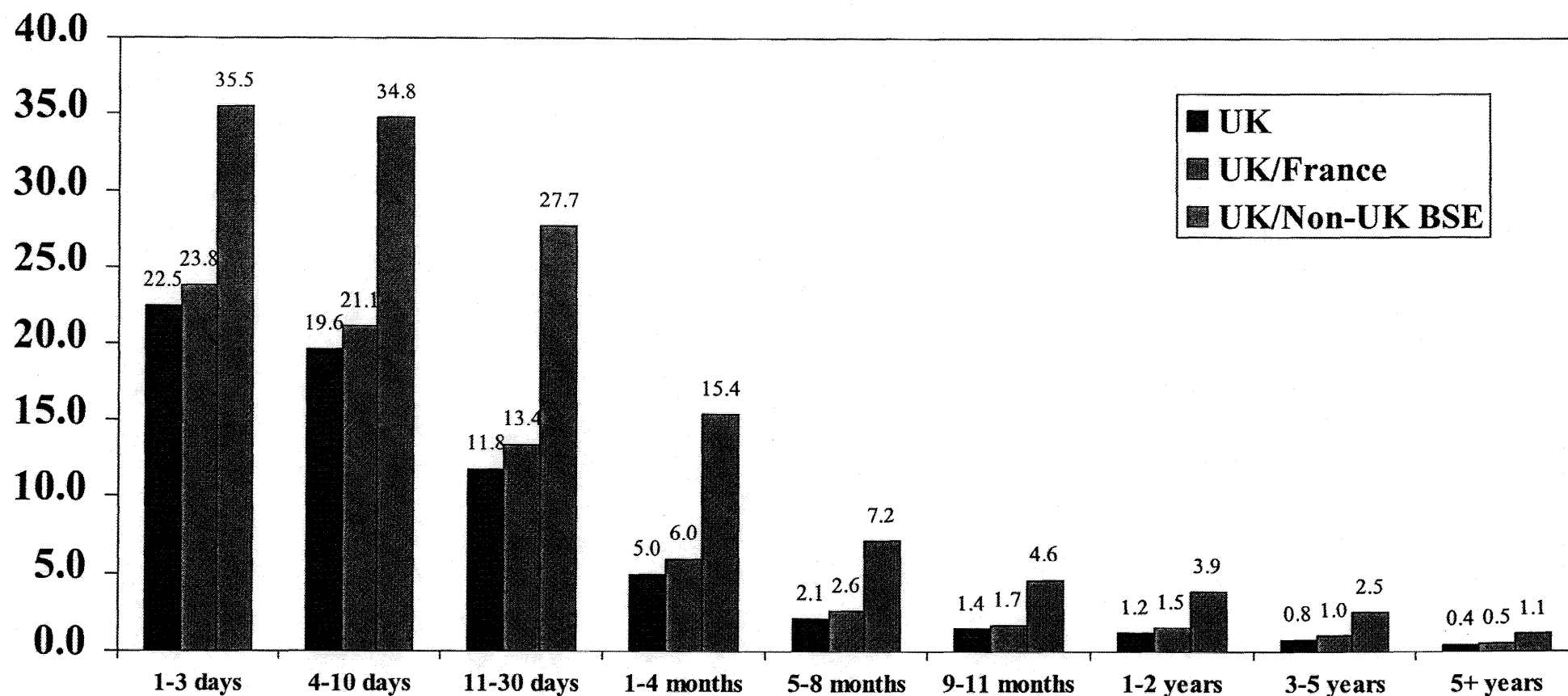
<u>Duration</u>	<u>Prevalence</u>	<u>95% CI</u>
1-3 days	35.5	34.5-36.5
4-10 days	34.8	33.8-35.7
11-30 days	27.7	26.8-28.6
1-4 months	15.4	14.7-16.1
5-8 months	7.2	6.7-7.7
9-11 months	4.6	4.2-5.1
1-2 years	3.9	3.5-4.3
3-5 years	2.5	2.2-2.9
5+ years	1.1	0.9-1.3

Cumulative Prevalence of Donor Travel to UK and France* Countries 1980-1996

<u>Duration</u>	<u>Prevalence</u>	<u>95% CI</u>
1-3 days	23.8	22.9-24.7
4-10 days	21.1	20.3-21.9
11-30 days	13.4	12.7-14.1
1-4 months	6.0	5.5-6.5
5-8 months	2.6	2.3-2.9
9-11 months	1.7	1.5-2.0
1-2 years	1.5	1.3-1.8
3-5 years	1.0	0.8-1.2
5+ years	0.5	0.4-0.6

* used 10% of the non-UK BSE cases in each interval + UK cases in each interval

Cumulative Prevalence of Donor Travel to UK, Non-UK BSE, and France 1980-1996



Blood Lost and Cumulative Person-Days by Length of Travel/Residence in BSE Countries, 1980-1996

	% of US	UK Cumulative	Non-UK BSE
<u>Duration</u>	<u>Blood Supply</u>	<u>Person-days (%)</u>	<u>Cumulative Person-days (%)</u>
7 days	14.9	99.8	100.0
1 month	6.4	97.8	99.1
3 months	3.4	92.7	95.0
6 months	2.2	86.3	88.4
1 year	1.5	80.3	80.9
5 years	0.3	56.3	46.8

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